AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method of determining a spectral route in an optical telecommunications network (T) between a starting node (ON1) and a destination node (ON6) of the network, the method being characterized in that it comprises:

using a conventional routing method to determine at least one candidate spatial route (Route 1, Route 2) connecting the starting node (ON1) to the destination node (ON6), each candidate spatial route consisting of a sequence of route segments, each segment connecting two nodes of the network directly and being adapted to support a plurality of wavelengths each constituting a spectral route segment;

collecting values of parameters characterizing all the spectral route segments along each candidate spatial route; and

finally, using an optimization method to process all the collected parameter values to select a spectral route and the spatial route that supports it by selecting the wavelength to be used, or the wavelengths to be used successively, to connect the starting node to the destination node, wherein the optimization method processes all the collected parameter values in the destination node.

2. (Original) A method according to claim 1, characterized in that, for collecting parameter values characterizing all route segments along each candidate spatial route, it consists in sending a route set-up request message from the starting node (ON1) to the destination node (ON6) and collecting parameter values in that message as it passes through each node along the candidate spatial route.

3. (Canceled).

4. (Previously Presented) A method according to claim 1, characterized in that the parameters characterizing all the spectral route segments along each candidate spatial route take account of transparency constraints.

5. (Previously Presented) A method according to claim 1, characterized in that the parameters characterizing all the spectral route segments along each candidate spatial route take account of connection capacity constraints.

6. (Previously Presented) A method according to claim 1, characterized in that the parameters characterizing all the spectral route segments along each candidate spatial route take account of quality of service constraints.

7. (Original) An optical network node for implementing a method according to claim 1, characterized in that it comprises management means for:

receiving a route set-up request message on a predetermined spatial route passing through the node;

adding to the content of the message parameter values concerning spectral routes supported by the spatial route segment immediately upstream and/or downstream of the node on the spatial route, together with parameter values concerning the interfaces of the node; and

forwarding the message modified in this way to another node situated on the spatial route segment immediately downstream of the node and designated by routing information contained in the message.

8. (Original) An optical network node for implementing a method according to claim 1, the node being characterized in that it comprises management means for:

receiving at least one message containing parameter values collected along a candidate spatial route connecting a starting node to the node; and

using an optimization method to process the parameter values collected in this way along at least the candidate spatial route to select a spectral route by selecting the wavelength to be used, or the wavelengths to be used successively, to connect the starting node to the node.